

REMARKS

Claims 46-72, as amended, and new claims 73-76 are pending in this application. In this Response, Applicants have amended certain claims. In light of the Office Action, Applicants believe these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

In particular, independent claim 56 has been rewritten to clarify that the outer cover is cast onto the inner components of the golf ball of the present invention. In addition, new claims 73-76 have been added to recite additional embodiments of the invention, which are supported by the present Specification, as well as by the disclosure of parent application no. 08/863,788, filed May 27, 1997, now U.S. Patent No. 5,885,172 ('172 patent). As no new matter has been added by the amendments herein, Applicants respectfully request entry of these amendments at this time.

Brief Description of the Present Invention

In general, the present invention is directed to a golf ball having a dual core and a double cover construction. In particular, the double cover is formed from a cast outer cover that is softer than the inner cover. One benefit of using a castable reactive material applied in fluid form for an outer cover is that it makes it possible to obtain a very thin outer cover layer. See '172 patent at Col. 8, lines 1-6. The casting method, disclosed in U.S. Patent No. 5,733,428 to Calabria *et al.*, which is incorporated by reference into the '172 patent, is described as the process of pouring the liquid castable material into the open mold and allowing it to continue polymerizing into a solid form after the mold is closed. See Calabria '428 at Col. 3, lines 7-10.

Thus, claims 46, 56, and new independent claim 73 recite a method for forming a dual core ball with an inner cover and an outer cover cast thereon. As explained in more detail below, the cited references do not disclose or even suggest a method of forming a golf ball by casting an outer cover before the effective filing date of the present invention.

THE REJECTIONS UNDER 35 USC § 103

The Rejection Based on Melvin '562 and Sullivan '870

Claims 46-55 and 56-72 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,779,562 to Melvin in view of U.S. Patent No. 6,117,025 to Sullivan for the reasons provided on pages 2-5 of the Office Action.

The Examiner principally relies upon Melvin '562, but acknowledges that Melvin '562 does not disclose all of the features recited in the claims. In particular, the Examiner states that Melvin '562 lacks any teaching regarding casting an outer cover layer. *See* Office Action at 2. As such, Melvin '562 would not have motivated one of ordinary skill in the art to arrive at the presently claimed invention without the use of improper hindsight.

In an attempt to remedy the deficiencies of Melvin '562, the Examiner relies on Sullivan '025 to state that it would have been obvious to cast an outer cover around the Melvin '562 golf ball. The Sullivan '025 patent claims priority to application no. 08/490,963, provisional application no. 60/042,119, and U.S. Patent No. 5,830,087. For the Examiner's convenience, Applicants submit herewith in Appendix B copies of the 08/490,963 and 60/042,119 applications.

Our review of the file histories of the applications and patents included in the Sullivan '025 priority claim showed that the earliest disclosure of methods of casting in this Sullivan family is, in fact, the January 20, 1998 filing date of Sullivan '025. In contrast, the presently pending independent claims are supported by the parent '172 patent with an effective filing date of May 27, 1997. *See, e.g.*, Fig. 1, col. 4, line 63 to col. 5, line 6, and col. 7, lines 35-40. Because the present claims are entitled to the filing date of the '172 patent, Sullivan '025 is not prior art. Thus, Applicants respectfully submit that the Examiner cannot rely upon Sullivan '025 to remedy the deficiencies of Melvin '562 to reject the pending independent claims.

In light of the remarks above, Applicants respectfully submit that the obviousness rejections have been overcome. Applicants therefore respectfully request reconsideration and withdrawal of the rejections.

NEW CLAIMS ADDED WITH THIS RESPONSE

Applicants respectfully submit that new independent claim 73 and those depending therefrom are also not rendered obvious by the cited references. As discussed above, Melvin '562 does not disclose or suggest a method of casting an outer cover layer of a golf ball having thickness of about 0.05 inches or less as presently recited. In addition, Sullivan '025 is removed as prior art because the subject matter of independent claim 73 has an effective filing date prior to the Sullivan '025 filing date. Thus, Applicants respectfully submit that the claims added with this Response are in condition for allowance.

CONCLUSION


Applicants believe that all of the pending claims are in condition for allowance. If the Examiner believes that this response does not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned attorneys to discuss any remaining issues.

A Petition for Extension of Time is submitted herewith to extend the time for response two months to and including January 13, 2003 because the due date of January 12, 2003 falls on a Sunday. In addition, a Fee Sheet Transmittal is submitted herewith to pay for the additional claims added with this Response.

No other fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Swidler Berlin Shereff Friedman, LLP Deposit Account No. 195127, Order No. 20002.0052.

Respectfully submitted,
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APPENDIX A
MARKED UP VERSION OF THE AMENDED CLAIMS

Please amend the claims as follows:

56. (Amended) A method of forming a golf ball comprising the steps of:
- forming a core comprising:
 - a solid center made from a first rubber based material;
 - a solid core outer layer made from a second rubber based material having different physical properties from said first rubber based material;
 - forming [a cover comprising:]
 - an inner cover layer [made from] comprising a material having a first shore D hardness and having an outer diameter of at least 1.58 inches;
 - casting an outer cover layer [made from] comprising a castable reactive liquid material having a second shore D hardness less than the first shore D hardness.

Please add the following new claims:

73. (New) A method of forming a golf ball comprising the steps of:
- forming a core comprising:
 - a solid center made from a first rubber based material;
 - a solid outer layer made from a second rubber based material having different physical properties from said first rubber based material;
 - forming an inner cover layer made from a material having a first shore D hardness and having an outer diameter of at least 1.58 inches;
 - casting an outer cover layer having a thickness of about 0.05 inches or less made from a material having a second shore D hardness less than the first shore D hardness of the material of the inner cover layer.
74. (New) The method of claim 73, wherein the outer cover layer has a hardness of about 30 Shore D to about 60 Shore D.
75. (New) The method of claim 73, wherein the inner cover layer has a hardness of about 65 to about 74 Shore D.

76. (New) The method of claim 73, wherein the outer cover layer has a thickness of about 0.02 inches to about 0.04 inches.

APPENDIX B
COPIES OF SULLIVAN '025 FAMILY APPLICATIONS

Please find attached:

1. U.S. Patent Application No. 08/490,963, filed June 15, 1995, now abandoned; and
2. U.S. Provisional Patent Application No. 60/042,119, filed March 28, 1997